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PHOTOGRAPHIC INTELLIGENCE BRIEF CIA/PIC

SUBJECT: Radar Sites Associated with

NO : PIC/B-1/60

Moscow Air Defense System

DATE: 25 February 1960

LOCATION: USSR

WAC: 153, 154, 166, 167

PHOTO DATA:

REFERENCES:

- 1. USAF. DPIR (K) No. 11, January 1956. (S)
- 2. USAF. DPIR (K) No. 1, May 1954. (S)

REMARKS:

Photography shows the presence of two radar sites associated with the Moscow air defense system. These sites are located near Michurinsk and Temnikov, USSR (Figure 1). Each site consists of a secured operations area and a nearby support area. The operations area is in the shape of a trapezoid and contains several radars of an EW/GCI type and at least two types of communications antennas; the support area contains bachelor quarters, family quarters, support strucutres, and utility facilities.

The radar site near Michurinsk is located 5.5 nautical miles (nm) east-northeast of the city, at $52^{\circ}5^{\circ}N/40^{\circ}39^{\circ}E$. The secured operations area (Figure 2) contains an operations bunker which appears to be designed for a heavy p.s.i. overpressure (Item 1), two GAGE radars on mounds (Item 2), two PATTY CAKE radars on mounds (Item 3), two small unidentified possible radars (Item 4), one probable CROSS OUT type radar on a mound (Item 5), two communications antennas (probably center-fed and horizontally polarized) (Item 6), one diamond-shaped antenna (probably not a rhombic) with a feed line which appears to lead to the epicenter (Item 7), and two gable-roofed support structures (Item 8).

The radar site near Temnikov is located 15 nm southwest of the city, at $54^{\circ}31'N/42^{\circ}49'E$. The secured operations area of this site is similar to

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PIC/B-1/60

the operations area of the site near Michurinsk except that the mound for the probable CROSS OUT type radar is under construction, and the two small unidentified possible radars are located on elevated platforms. The reason for the elevated platforms may be the close proximity of mature coniferous timber.

Both the Michurinsk radar site and the Temnikov site are on an approximate 200 nm radius from Moscow, and these sites are approximately 125 nm apart. GAGE/PATTY CAKE sites which may be similar have been previously reported on an approximate 200 nm radius from Moscow, near Bryansk, Smolensk, and Borovichi. 1/ Assuming that a ring of sites would be located at 125 nm intervals on a circle around Moscow with a 200 nm radius, a total of ten sites would be required. The sites near Michurinsk and Temnikov, along with the three previously reported sites, fit this deployment pattern. Suspected areas to complete the pattern of ten sites include Livny, Toropets, Cherepovets, Kostroma, and Gorkiy.

Other GAGE/PATTY CAKE sites have been previously reported near Kotovo, Tushino, Vnukovo (also called the Vnukovo/Akutovo site and Odintsovo site), and Salarevo, on an approximate 14 nm radius around Moscow. 1/, 2/. Two of these sites, Kotovo, and Vnukovo, are covered by small format photography If these sites are part of a ring on a radius of 14 nm from Moscow, then at least three more sites should be expected.

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PIC/B-1/60

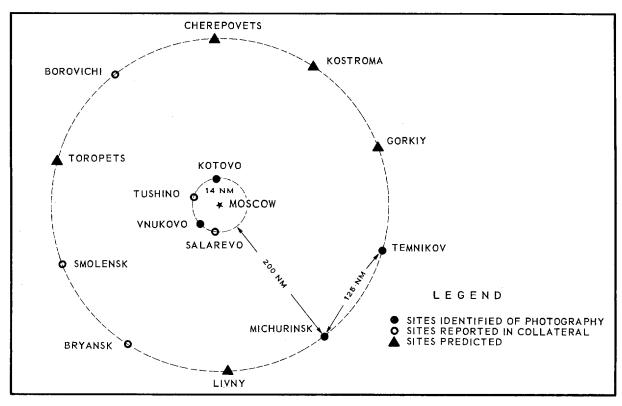


FIGURE 1. RADAR SITES ASSOCIATED WITH MOSCOW AIR DEFENSE SYSTEM.

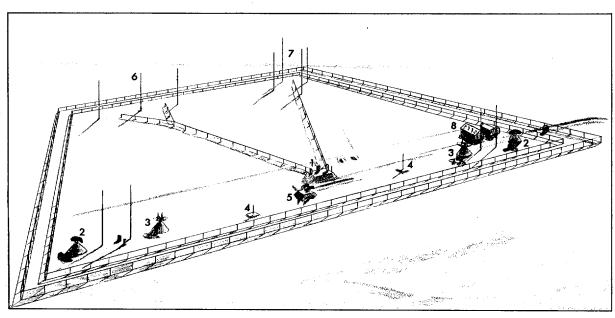


FIGURE 2. PERSPECTIVE SKETCH OF RADAR SITE NEAR MICHURINSK, USSR.

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